

Department for
Transport

Fishing 2006 Safety Digest



MAIB

MARINE ACCIDENT INVESTIGATION BRANCH





The Marine Accident Investigation Branch is an independent part of the Department for Transport, (DfT) and is completely separate from the Maritime and Coastguard Agency (MCA). The Chief Inspector of Marine Accidents is responsible to the Secretary of State for Transport. The offices of the Branch are located at Carlton House, Carlton Place, Southampton, SO15 2DZ.

This *Safety Digest* draws the attention of the marine community to some of the lessons arising from investigations into recent accidents.

This information is published to inform the fishing industry and the public of the general circumstances of marine accidents and to draw out the lessons to be learned. The sole purpose of the *Safety Digest* is to prevent similar accidents happening again. The content must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available. The articles do not assign fault or blame nor do they determine liability. The lessons often extend beyond the events of the incidents themselves to ensure the maximum value can be achieved.

Extracts can be published without specific permission providing the source is duly acknowledged.

The *Safety Digest* can be obtained by applying to the MAIB. Other publications are also available from the MAIB.

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**If you wish to report an accident please call our
24 hour reporting line 023 8023 2527**

The telephone number for general use is
023 8039 5500

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Safety Digests are available on the Internet:
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The role of the MAIB is to contribute to safety at sea by determining the causes and circumstances of marine accidents, and working with others to reduce the likelihood of such causes and circumstances recurring in the future.

Extract from:

The Merchant Shipping (Accident Reporting and Investigation) Regulations 2005

The fundamental purpose of investigating an accident under these regulations is to determine its circumstances and the cause with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.



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Chief Inspector's

Fishing is, by a large margin,

In 2005, 34 UK fishing vessels were lost with the cost of 9 fishermen's lives. These figures are depressingly consistent with previous years – at a time when safety is improving in virtually every other industry. Fishing is, by a large margin, the most dangerous profession in the UK.

There is a widely held view in the industry that: *fishing has always been a dangerous business; it always will be; and there is nothing anyone can do about the dangers of the sea.* **THIS IS JUST NOT TRUE.** Very few, if any, of the losses are caused by “the sea”. They are actually caused by human failures, such as: poor maintenance; leaving doors and hatches open; watchkeepers falling asleep or leaving the wheelhouse unmanned; ill considered modifications to the vessel making it unstable; dangerous practices when shooting or recovering nets, or after coming fast; or the lack of a lifejacket, liferaft or EPIRB.

It is worth a small investment of time and money to ensure you, your crew and your vessel remain safe:

Foreword



the most dangerous profession in the UK.

MAINTENANCE CHECKS

- Test your bilge alarm before every trip.
- Turn off your seacocks in harbour – it will prevent your vessel sinking in harbour, and ensure that they are working if you need them in an emergency at sea.
- Check your bilge pumps work.
- Regularly check your hull and hatches.
- Check your fire-fighting equipment.

DOORS AND HATCHES

- Close doors, hatches and windows as a matter of routine – it's much easier to keep water out than trying to pump it out.
- Use all the dogs on doors and hatches; this will help prevent them from seizing.
- Fit suitable ventilators rather than using doors and windows for ventilation.

MODIFICATIONS

- Seek professional advice on the effect any modifications will have on your vessel's stability.

WATCHKEEPING

- Make sure a good lookout is kept at all times – never leave the wheelhouse unattended.

NETS

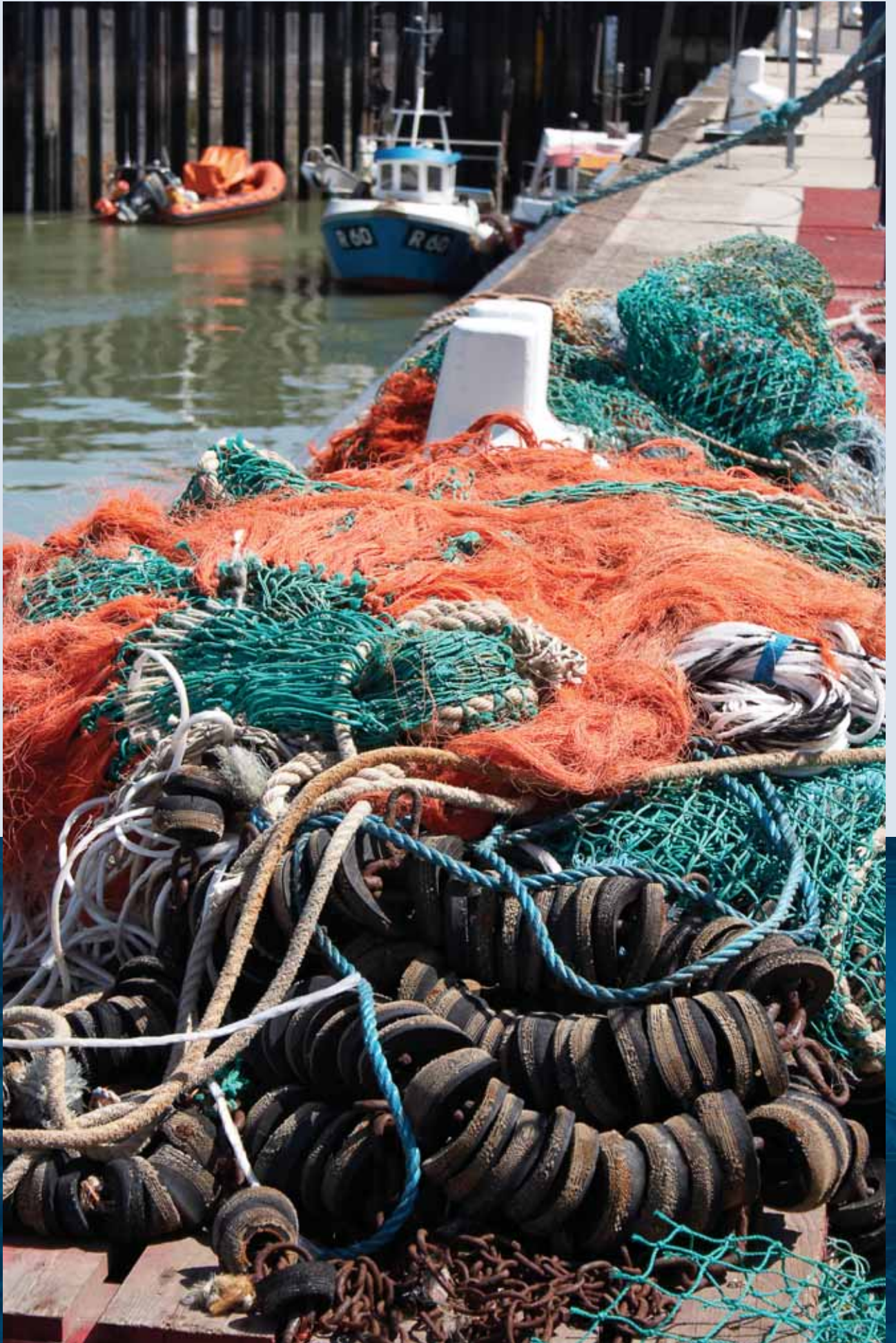
- Think through how you shoot and recover your nets, and how you deal with problems such as coming fast. Look at the possible dangers, and how you can reduce them.

LIFESAVING EQUIPMENT

- Wear inflatable lifejackets on deck. Talk to Seafish or the RNLI to identify a suitable lifejacket that can be worn without getting in the way.
- Keep other lifejackets accessible for emergencies – lifejackets stowed in a container near the wheelhouse have saved lives, and could save yours.
- Ensure you have an in-date liferaft, that it has a good hydrostatic release, and that it is well positioned to float free.
- Fit an EPIRB. It can alert rescue services in the event of your vessel sinking if you don't have time to put out a distress call or GMDSS alert.

A little preparation can ensure that you and your crew return home safely, whatever the sea throws at you – you owe it to your loved ones.

A handwritten signature in white ink that reads "Stephen Meyer".



Man overboard — fatal accident

Narrative

A 16m fishing vessel was returning to port after spending the day fishing for crabs using creels. On board were the skipper and three crew members; all three crew members were turned in. The weather conditions were good: a light south-easterly wind and slight seas.

When the vessel reached a position about a mile from the harbour entrance, all three deck crew members were called to make ready the vessel's moorings and fenders. Before going to their mooring stations, they gathered on

the aft deck to finish their coffee and cigarettes. The skipper was in the wheelhouse with the port side window open.

Two members of the crew proceeded forward and the other went to his station, port side aft. The height of bulwarks aft was significantly less than the required minimum.

None of the crew were wearing working type lifejackets. None were on board.

When the vessel eventually came alongside in the harbour, the crewman who had been stationed

aft was nowhere to be found. The remaining deck crew quickly searched ashore, thinking he might have jumped off the fishing vessel for some reason. However, he was not found.

The skipper raised the alarm immediately with the emergency services, and a full air and sea search was conducted. The search continued for several hours without success. A month later, the body of the missing crewman was found washed ashore on a local beach.

The Lessons

1 This is another accident involving a fisherman losing his life after having fallen over the side. An exemption had permitted the vessel to operate with bulwark heights aft well below the minimum required under the *Code of Safe Working Practice for the Construction and use of 15m Length Overall to Less Than 24m Registered Length Fishing Vessels*. Ironically, during the several years she had crabbed, creels had neither been hauled, nor shot over the stern. It is always easy to be wise after the event, but this tragic accident could so easily have been prevented if the height of the bulwarks aft had been increased using portable stanchions and wires.

2 Had the casualty been wearing a working type lifejacket or buoyancy aid, he might still have been alive to tell his tale. Always wear a working type lifejacket or buoyancy aid in case it happens to you. No matter how awkward or cumbersome they may seem, they save lives.

3 If you haven't already carried out a risk assessment, or been involved in one onboard your vessel, make sure you do. It is a handy tool for identifying the risks on board any fishing vessel. Dangers, such as low bulwark heights, will then become obvious.

Capsized – with



Narrative

A well found 7m GRP fishing vessel sailed from an east coast port with a crew of three to begin fishing in a river estuary. Onboard were the skipper, who was an experienced fisherman; a 14 year old boy, acting as deckhand; and a 9 year old boy, along for the trip as a passenger. Weather conditions were good.

Shortly after leaving her mooring, the vessel started trawling for dover soles in approximately 7 metres of water in an area of known underwater obstructions. Fishing was good, and approximately 38 kilos of soles had been landed when the trawl came fast on what the skipper believed to be an underwater obstruction.

Once fast, the skipper attempted to free the trawl by

Photographs taken during the salvage operation.

The Lessons

1 All too often, the MAIB finds in its investigations that the wearing of lifejackets has been ignored; this case was no exception. The wearing of lifejackets had not been considered at any time since the vessel left her mooring, even though two young people were onboard. Occasionally, lifejackets can be cumbersome when handling fishing gear, however once this vessel was disabled it should have been evident to the skipper that lifejackets were a sensible precaution and could only have assisted with the rescue operation.

2 Fouling of the propeller effectively disabled the vessel. Earlier on, when the skipper had encountered little success freeing his nets, he should have made the decision to slip and buoy the gear for recovery at a later date. This would have proved the safer AND more cost-effective option.

3 The coxswain of the lifeboat agreed to tow after a direct request from the skipper. Before starting the operation, it would have been prudent for the coxswain to have removed all crew from the vessel, or, at the very least, advised them of the benefits of wearing lifejackets. It is also important for people involved in similar operations to have an awareness of the risks involved in assisting vessels, especially fishing vessels that are in danger of capsizing and possibly foundering.

4 Analysis of the lessons learnt from this accident shows that a better awareness of the risks involved, and a plan to minimise those risks, could quite easily have saved the vessel from foundering. Marine Guidance Note 265(F) clearly identifies some of the hazards associated with trawling, and explains in a straightforward manner some of the considerations to be taken into account in order to minimise risks associated with such hazards.

assistance

alternate heaving on the port and starboard warps pulling the vessel towards the fastener against the prevailing tidal stream, at times submerging the gunwale. The skipper had not considered the wearing of lifejackets for himself or his crew throughout the operation. Once the vessel was heaved back and still fast, the skipper decided to turn her head into the tide and run back over the fastener in a further attempt to free the gear. On completion of the turn, the dog rope from the cod end fouled the propeller and the vessel lost all manoeuvrability.

Realising he now required assistance, the skipper made a mobile telephone call to a friend, who liaised with the local lifeboat.

The lifeboat subsequently arrived at the scene, the coxswain was briefed en-route by the skipper, who was aware of the tenderness of his vessel and specifically requested the lifeboat not to tow him from forward. Consequently the lifeboat secured alongside (bow to bow) and secured 4 lines with the intention of using minimum power to free the fishing vessel from the fastener. Fortunately, it was decided to transfer the 9 year old boy across to the lifeboat for safety.

Shortly afterwards, the coxswain applied minimum power in an attempt to free the vessel. Immediately power was applied, the fishing vessel began capsizing to starboard, away from the lifeboat. The skipper and crew were thrown

overboard by the momentum, and the vessel came to rest on her starboard side. After swimming, in full working gear, to the stern of the lifeboat, both crew members were assisted onboard by the lifeboat crew. A decision was then taken to cut the lines and allow the fishing vessel to founder. The crew were transferred safely to the shore and luckily on this occasion no one suffered injury.

A salvage operation performed the following day located the vessel on its second attempt. After a 6 hour operation, the trawls were cut and the vessel raised, pumped out and safely returned to her mooring. Divers were not able to identify the nature of the obstruction due to poor visibility.



Quick, sensible and effective action

Narrative

The watchkeeper in the wheelhouse of a 16 metre wooden fishing vessel was alerted to a problem by the engine room fire alarm. A quick inspection found a small fire in the region of the switchboard and batteries. It was immediately tackled using a portable foam extinguisher. This appeared to put out the fire, but this was replaced by large quantities of acrid smoke.

The engine room was immediately evacuated, the hatch and fire flaps were closed, the engine was stopped and the fuel supply shut off using the remotely

operated valves. A “Pan Pan” was broadcast and acknowledged by the coastguard. The liferaft was prepared for launching but, in the event, was not required.

Fortunately, a nearby fishing vessel was in a position to respond and she soon came alongside the casualty. A towline was secured and, mainly due to the large quantities of foul smoke still being generated, all crew of the casualty transferred to this vessel. The good weather conditions made this operation straightforward.

The casualty was towed to a nearby port where the fire brigade

Damaged area above batteries.



attended. They entered the engine room and found no signs of fire, although there were still significant amounts of heat. Damage appeared to be confined to a group of electrical switchboxes just above the battery bank. It was presumed that an electrical fault started the fire.

The Lessons

1 Following their successful attempt to extinguish the fire, the crew made no attempts to remain in the engine room once acrid smoke began to be generated. This was very sensible as the heat was in the region of the batteries, and much of this ‘smoke’ might have been fumes from the acid within the batteries and hot electrical insulation. Closing down the engine room contained this potentially dangerous atmosphere until the vessel was brought into port, where the specialist resources of the fire brigade were available.

2 The engine room fire alarm obviously worked as intended and alerted the crew to the problem before the fire had a chance to spread. This showed the value of properly functioning fire detection systems.

3 When discovered, the fire was not very large. By tackling it in the very early stages, the crew limited the damage so they were not forced to abandon their vessel prematurely.

Fisherman uses rule 17 to good effect

Narrative

A fishing vessel was returning to port on a westerly course. It was dark with good visibility. A cargo vessel was approaching on a north-westerly course and was expected to cross ahead of the fishing vessel at a range of about 0.2 mile. Both vessels were displaying normal steaming lights.

The fishing vessel skipper interpreted that a risk of collision existed and became concerned that the cargo vessel was taking no action to keep out of the way. He indicated his concern on VHF radio, but the cargo vessel's OOW failed to understand what he was saying and made no response. Believing the cargo vessel's bridge to be

unmanned, the skipper then stopped his vessel, and the cargo vessel passed ahead at a range of about 0.3 mile.

The fishing vessel skipper reported this incident to the MAIB, which enabled us to take it up with the company concerned. It is worth reporting such incidents to us - we will take action as appropriate.

The Lessons

1 Rule 17 (a)(ii) of the Collision Regulations empowers a stand-on vessel to take avoiding action as soon as it becomes apparent that the give-way vessel is not taking appropriate action in compliance with the Rules. In this case, the fishing vessel's skipper used it to good effect in eliminating what he considered to be a risk of collision.

2 The skipper's accent was such that the cargo vessel's OOW failed to understand what he was saying, and highlights the potential danger in using VHF radio for collision avoidance. As shown in this case, the use of VHF radio is unnecessary provided that the Collision Regulations are strictly complied with.

3 Although a perceived collision was avoided by the actions of the stand-on vessel alone, the situation could have been avoided altogether had the cargo vessel's OOW taken early action in compliance with Rule 15.

Liferafts do save lives

Narrative

A 20 year old open, under 10m wooden gill netter sailed out of port with three crew, in the early hours of a spring morning.

The crew intended to recover wreck nets laid the previous day, and arrived at the first wreck just after dawn. The next 12 hours were spent retrieving the nets and gutting and stowing the fish. Having completed a good day's fishing, at about 6pm they headed back to port with about 1 tonne of fish on board.

The wind was force 4 to 5 on their port quarter and there was a moderate swell; conditions normal for the area.

About an hour into their passage back to port, the engine suffered a slight drop in revs. The skipper recognised the symptoms of a choked fuel filter and went below to change it, a job which took only a few minutes. While down below, the skipper took the opportunity to look around the engine room space and noticed that

there was very little water in the bilges and all looked well. He then returned to the control position and put the kettle on.

A few minutes later, the skipper became aware that water was being shipped over the port quarter, not unusual in itself, but this was quickly followed by more water. He became alarmed, and instructed the crew to get the liferaft out. Before they could reach the liferaft, the boat listed sharply to port and the skipper told them to

The Lessons

1 The boat was not required to carry a liferaft. The skipper's decision to carry one anyway, undoubtedly saved his and the other survivor's lives. All users of small boats are recommended to learn from this accident and carry a suitable liferaft, properly mounted on their boat.

2 No EPIRB was required and none was fitted. Had one been carried and been used, it would not, in this case, have saved the crewman's life, but it would have raised the alarm earlier, allowing the survivors to be picked up sooner.

3 Lifejackets were available on board, but these were not worn at all times. Survival suits were not required or available on board. Boats often sink far faster than expected, and it is not uncommon for there to be insufficient time to don a lifejacket, never mind a survival suit. All users of small boats are recommended to find a lifejacket or survival suit incorporating a lifejacket, that can be worn while working and to wear it at all times.

4 When buying or leasing a liferaft, it is usually possible to specify additional flares to those supplied as standard. Where only hand-held flares are supplied, all users of small boats are recommended to specify additional parachute flares.

get clear of it. He then made for the radio to call a "Mayday" but was forced off the boat before he was able to do this. The boat sank quickly by the stern, leaving only the bow out of the water.

Once in the water, the skipper retrieved the liferaft from its stowage and managed to inflate it, although it was upside down. One of the crew was very weak and clinging to the bow of the boat, while the other was swimming

about 3 metres away from the raft. Neither of the men was wearing a survival suit or a lifejacket.

Though weak himself, the skipper was able to assist the crewman from the bow of the boat onto the top of the upturned liferaft, while shouting to the remaining crewman to swim to the raft. Tragically, the remaining crewman never made it to the raft, and was lost. The survivors rested, then righted the raft and were able to

shelter inside while still searching for their fellow crew member.

The boat was missed in the early hours of the following morning, and after an extensive search and rescue effort, the survivors were winched from the raft by helicopter. They had been adrift for 12 hours. The liferaft was only equipped with hand-held flares and these were not sufficient to raise the alarm or draw attention during the search and rescue.



Painting depicting the fishing vessel.

A fatal decision

Narrative

A 7m potting vessel, which was being operated single-handedly by her skipper/owner, failed to return to harbour.

After other fishermen in the harbour reported the vessel missing, the coastguard conducted a full air and sea search. Some time later, the missing vessel was discovered, 2 miles from land and with no-one on board.

A further search the following day located the vessel's fishing gear. With the aid of a local fishing vessel and her crew, the gear was hauled. After three pots were hauled on board, the skipper/

owner's body was found entangled in the gear. His ankle was caught in the bight of back rope. It is believed that he had been in the process of shooting pots when his ankle became entangled in the back rope of a fleet of pots, which then dragged him over the side.

The skipper/owner had bought

the vessel about 3 months before the accident. The vessel had been fitted with a shooting table, which prevented the back rope coming into contact with the crew when the gear was shot. However, for ease of single-handed operation, the skipper had removed it: a fatal decision.





General views of the vessel.

The Lessons

1 The majority of crews on potting vessels are well aware of the hazards involved when shooting pots, and take care to avoid them. Too often, however, accidents still happen. Time and again, family and friends are left mourning a loved one who became entangled in a bight of back rope and was dragged helplessly over the side of the vessel.

2 When shooting pots, always stand clear of them and any associated ropes, paying particular attention to keeping your feet out of the bights of back rope.

3 If the deck space on your vessel allows, try adopting an alternative system whereby the back rope is detached from the pots and stored independently. When shooting, the rope is then separated from the

crew. Information on these alternative systems is available from the Sea Fish Industry Authority (SFIA). If the deck space does not allow such a system, the use of a shooting table is a good alternative.

4 It is not advisable to put to sea alone. If you have an accident, no one will be available to offer immediate assistance. If you fall over the side, there will be no one on hand to inform the rescue services and your chances of survival will be slim.

5 It has to be said that this skipper's fate was probably not determined by whether or not he was wearing a lifejacket. Nevertheless, this doesn't alter the fact that a working type lifejacket, worn on deck, will greatly improve the chances of survival in very many accident situations. Wear one. You never know when you might depend on it.

Not a stroll in

Narrative

A 16 metre wooden fishing vessel, with a crew of six, was making an overnight coastal passage to her usual fishing grounds. One crewman was on watch, the rest were asleep in the accommodation.

A couple of miles before reaching a position where an alteration of course was necessary, the crewman stepped from the wheelhouse into the galley area just behind the wheelhouse. While there, the watch alarm sounded. Moving quickly to silence the alarm, he jumped up a step into the wheelhouse. In doing so, he struck his forehead very hard on the low door frame. Although managing to take the two steps to reach the wheelhouse chair, he lost consciousness.

The vessel continued on its course, at almost 8 knots, and the

course alteration was missed. Minutes later, she struck the almost vertical cliff face of a small headland; a headland that the course alteration would have caused her to avoid.

The noise and shock of the impact awoke the rest of the crew. Entering the wheelhouse, the skipper found the watchkeeper barely conscious in the chair. Engine room and hold bilge alarms were sounding. The skipper instructed the others to prepare the liferaft for launching and pressed the emergency button on the DSC/VHF. Recognising he needed to get out of the wheelhouse because of the vessel's rapidly deteriorating state, he was unable to hold down the DSC button for long. One of the crew opened a forward hatch, to be met by a

rapidly rising level of sea water. Even in the dark, it was clear to all that the vessel was in a desperate state.

The liferaft was launched and all six men climbed in. They pushed themselves away from the stricken boat, and watched her as the engine stopped and the stern light went underwater. She was soon sitting on the bottom, with only her masts visible above water (see figures).

Realising they would be unable to get ashore by climbing the steep cliffs, the survivors decided to paddle along the coast. They had great difficulty in opening the liferaft's equipment pack because there was no light fitted to the canopy. Two of the men had had the opportunity to collect lifejackets during their evacuation,



The Lessons

1 The watch alarm could not be heard outside the wheelhouse and galley area. Without a second person being awake and in the vicinity of the wheelhouse, the vessel was not under control once the watchkeeper had been disabled. Unless able to alert others, a watch alarm has no value when, for whatever reason, the watchkeeper is disabled.

2 No "mayday" signal was sent because the skipper was unable to hold down the DSC button for the necessary 5 seconds. An audible signal is usually given when the 5 seconds have elapsed and a message is sent. In the event, the rather loud bilge alarms would have prevented the skipper hearing the signal in this case.

the park

and the lights on these were used to give some rudimentary illumination. Once the pack was open, the paddles were found, as were three hand-held flares and a torch. The torch did not work, even after the batteries were changed for the spares that were also in the pack. One flare was set off in the hope of attracting somebody's attention, but the remaining two were saved.

At that stage, some of the men were confused because of the apparent shortage of kit in the liferaft's pack. In the words of the skipper: *'we were becoming angry because we did not find the kit we knew should have been there. We could not understand why there was not more gear. I expected to find some parachute flares at least.'*

A moderate wind assisted them to paddle along the coast, and they found a place to clamber ashore nearly an hour after the grounding.

Once ashore, the men found themselves in very remote terrain, with no shelter, cold, in the dark, in drizzly rain and with no signs of habitation, apart from a single light a couple of miles away. Nobody had any warm clothing and one man had no shoes. However, they began to walk towards this light.

During their walk, attempts were made to call for assistance using a mobile telephone. Unfortunately, due to its remoteness, the area had no coverage. Their trek lasted nearly 2 hours. However, they finally managed to reach a private house, where they raised the alarm.



All the men suffered some degree of distress due to the cold and wet. The watchkeeper who had struck his head was taken to hospital, where he was detained.

3 Because of an administrative error, the liferaft was a type not approved by the MCA for carriage on fishing vessels of this size. An approved liferaft would have carried parachute flares and had a canopy light, just as this crew had expected and been trained to use. This crew now appreciate the value of some of the equipment the MCA requires.

4 Another feature of the liferaft was that its manufacturers recommended servicing every 36 months, rather than the more common 12 months. It was last serviced 30 months before this accident. Although the failure of the liferaft's torch cannot be attributed to the time since the last service, the shorter service interval is likely to reduce the chances of equipment becoming faulty.

5 It is important that skippers and owners appreciate the significance of the differences between liferafts made and equipped to MCA standards and those that satisfy other bodies. This is not just a matter of satisfying regulations: crews' lives might depend on it.

6 Although the liferaft was not equipped or serviced to the usual MCA standards, and the crew were rather upset at its limited equipment, it almost certainly saved their lives.

Stability aware?

Narrative

Families were left mourning their loved ones after the entire crew of a 17m fishing vessel was lost in force 6 winds and a strong tidal stream. The following narrative provides the detail of this tragic incident.

The vessel and her crew of four headed for her regular fishing grounds and started trawling. After about 4 hours, the cod end was hauled on board and the catch was stowed down below. The skipper turned in during the second tow, leaving one of his crew on watch. The wind was east-north-easterly force 6, and a strong tidal stream was running with the vessel when her trawl gear became snagged. Water entered the vessel through vents and other openings, causing her to capsize to starboard.

The vessel sank suddenly and her crew of four was lost.

The vessel's EPIRB was released and started transmitting, prompting an extensive air and sea search. That day, only the EPIRB and debris were found. The following morning, the liferaft was recovered, inflated but with a severed painter. The wreck was located on the seabed and two of the crew members' bodies were retrieved from it.

The vessel was later raised to enable a thorough examination to be made, including an assessment of her stability. The results were alarming: the vessel had very poor stability, well below the required standard for a vessel of her size. The chart opposite shows righting lever (GZ), which is a measure of a

vessel's ability to return to upright when heeled, against heel angle. The greater the righting lever, the greater the force restoring the vessel to upright. It was later found out that some time before the accident, concerns had been raised about her stability.

During the detailed examination of the vessel, a fuse, which supplied both the fire alarm and the bilge alarm, was found pulled in the wheelhouse, rendering these two safety systems inoperable. The bilge alarm sensors were blocked with debris, the fixed bilge pumping system was also in a poor state and had lacked proper maintenance. Reliance appears to have been placed on a single portable electric bilge pump to cope with any flooding.

The Lessons

1 An awareness of stability and its importance is vital to the safe operation of a fishing vessel. If your vessel requires stability approval, make sure it is up to date and that the vessel has not subsequently been modified or changed its operation significantly. If it has, the vessel's stability must be checked by an expert.

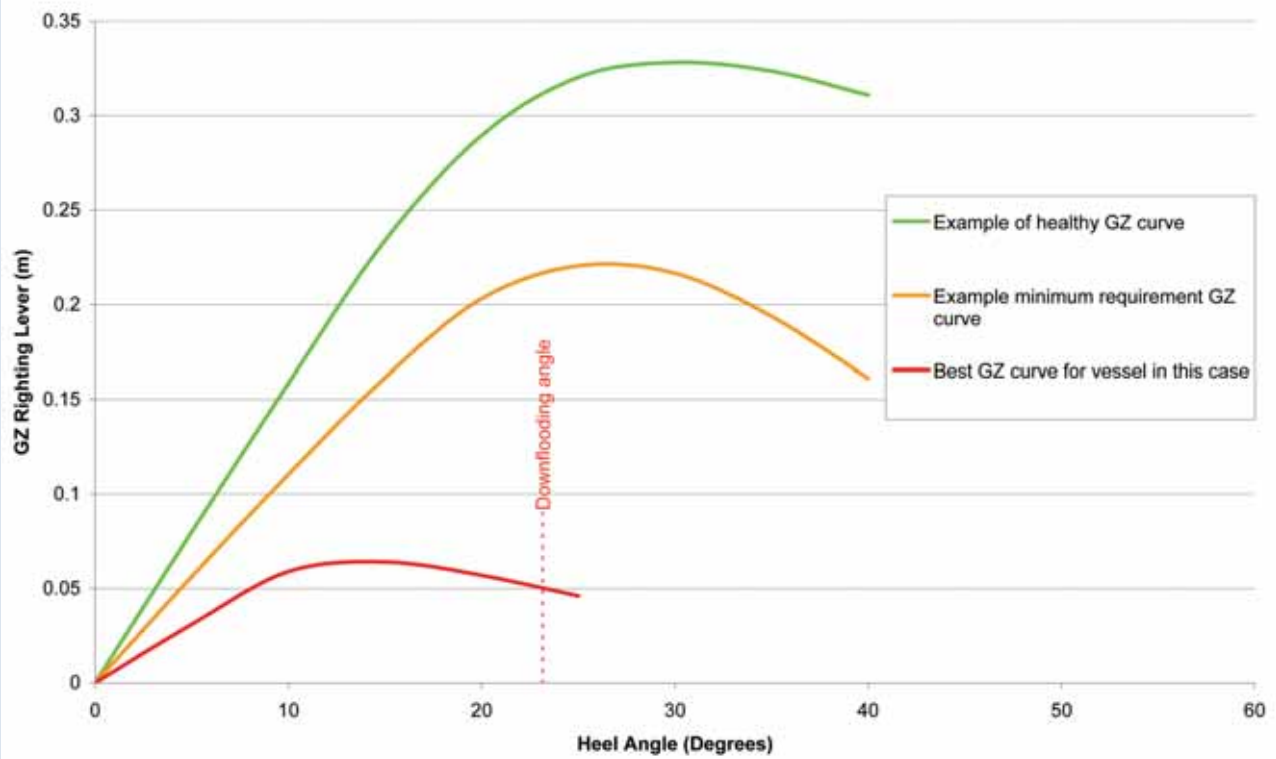
2 Snagging places you and your vessel at great risk. Ensure you have minimised the risk of becoming snagged when trawling: know your ground and use the correct length of trawl warp. Although you might have survived numerous occasions of your fishing gear becoming snagged, this does not mean your vessel is immune from capsize.

3 The bilge alarm is the main line of defence against flooding, giving you additional time to react promptly to an incident. Make sure yours is working and test it before every trip to sea. You never know when you might need it.

4 Pulling the fuse on safety systems such as the bilge alarm or fire/smoke alarm puts crews' lives at greater risk. If a system is giving false alarms, get it fixed. Remember the systems are there for you and your crew's safety.

5 Make sure your float-free liferaft can do just that! Position the raft to maximise the chances of it deploying successfully and not entangling the painter. And make sure your raft has been serviced and that any hydrostatic release is in date.

Fishing Vessel GZ Curve Comparison



Corrosion, what corrosion?

Narrative

This accident occurred to a 9.8m creel boat. She was built of GRP and had a wheelhouse forward, with the hauler and additional engine and steering controls on the starboard side. She was well maintained and always operated with a two-man crew, who were also the owners of the boat.

The vessel had been fitted with a vivier tank below decks some time after her initial build. A pump for circulating water had been fitted below deck in the space aft of the tank. This had through hull fittings to supply the pump. When the owners bought the boat, they intended to occasionally leave the pump running overnight

unattended. They thought it would be dangerous to site the pump below decks, since any pipework failure might have meant water filling the boat. They therefore moved it up on deck, but left the original sea cocks in place.

As delivered, the boat was fitted with a toilet, but this was considered unnecessary so was removed and the space used as a store. Again, the sea cocks for the toilet system were left in place.

The vessel had sailed early in the morning, and the crew were working their second string of pots. At about midday, the bilge alarm sounded. A check of the bilge in the engine space showed that

there was a fair amount of water present, so the deck wash pump suction was switched over from the sea suction to the bilge suction. The water in the bilges continued to rise, so the vivier circulating pump was started and the suction put into the bilges. At that stage, the skipper made a call to the coastguard indicating their problems - but not their position.

Shortly after that, the main engine stopped due to the amount of water in the bilges, and this stopped the deck wash pump, which was driven from this engine. The crew donned their lifejackets and launched their liferaft. The boat was feeling very sluggish and,





with the water still rising in the bilges, a second and final call was made to the coastguard. This time they gave their position, which was read from the GPS receiver.

The crew took to the liferaft and were winched to safety by helicopter. The fishing vessel was lost.

The exact reason for the boat sinking has not been established. However, the number of electrically isolated through hull metal fittings suggests that undetected corrosion of one of these, eventually caused a failure of the fitting and the subsequent loss of the boat.



The Lessons

1 The boat was well supplied with sacrificial anodes, the bolts of one passing through the hull. The earthing straps from the pipework systems were connected to it, providing electrical continuity and therefore protecting these systems from galvanic corrosion. There were no earthing straps connected to the redundant sea cocks, and therefore no electrical connection between them and the sacrificial anodes. It is possible that one of the sea cocks became corroded due to galvanic action. It failed, allowing unrestricted flooding of the boat. To avoid areas of severe galvanic corrosion, redundant hull fittings on GRP hulls should, ideally, be removed and appropriate repairs made to the GRP. Where this is not possible, care should be taken to ensure that any redundant hull fittings retain electrical continuity.

2 The boat was not required to have a liferaft on board. The fact that one was carried, and deployed early, combined with prompt calls to the coastguard, saved the crew from a long, cold and wet afternoon.

3 By not giving the coastguard the vessel's position during his first call, the skipper presented the rescue services with a quandary. Although the helicopter that was scrambled to provide assistance was deployed towards the general direction of the fishing vessel, valuable time was lost until the second call provided the coastguard with a more accurate fix of the boat. In other circumstances, the additional time taken by the rescue helicopter to reach the crew men might have made the difference between life and death. It is imperative that the position of your vessel is passed to the rescue authorities as soon as an emergency situation begins to develop.

'It just went off in my hand chief!'

Narrative

An 18 metre beam trawler had just returned to port after a successful fishing trip. Good husbandry is always to be encouraged, and in this case the skipper wasted no time instructing the crew member to thoroughly clean out and wash down the accommodation area. Keen to please, the crew member set about his task with gusto ensuring no stone was left unturned and no locker remained untouched!

While tidying and cleaning one of the lockers, the crew member removed a rocket line-throwing appliance in order to gain better

access. Shortly afterwards, the line-throwing appliance was detonated. Travelling diagonally across the accommodation, and lodging itself in the starboard aft bunk, a fire broke out immediately. After raising the alarm, the fire was quickly extinguished by the crew member, ably assisted by shore staff and the crew of an adjacent vessel.

The fire brigade was called and attended the incident as a precaution, but were satisfied that there was no chance of re-ignition.



The Lessons

1 Skippers should ensure that the locker containing a vessel's pyrotechnics is located on or near the bridge in a secure, dry and readily accessible location. The locker should be clearly marked with the contents.

2 The crew member in this case appeared unaware of the dangers and the consequences of operating a rocket line-throwing appliance. It is a sensible precaution for a skipper to include, within a crew member's joining instructions, the designated stowage and the operation of all pyrotechnics carried onboard.

3 Thankfully, in this case no personal injury was sustained. Circumstances could have been very different and the outcome very much worse. Quick reactions by those involved in fighting the fire also helped keep physical damage to a minimum.

Figure 2: Port ladder and access showing unguarded gap.

Elevated work, elevated risks

Narrative

It was a very pleasant day, which provided the opportunity to carry out routine maintenance on board a UK flagged trawler. Some of the crew were working aft on the trawl wires, the skipper was in the wheelhouse and the chief engineer was on the main deck. The engineer noticed that the port main deck floodlight situated on the 4 metre high platform (Figure 1) between the forward masts had a “crazed” glass. This was not unusual; a combination of the hot glass and cold sea spray had caused this before, and the engineer was accustomed to changing the glass.

Having obtained a new glass, the engineer climbed the ladder to the platform. He was wearing safety shoes, but no other personal protection equipment. He was not

wearing a safety harness, although six were on board and all were in date for test. The engineer informed nobody that he was going aloft.

The engineer accessed the platform through an unguarded gap in the guardrails (Figure 2). The platform (Figure 3) was wet, did not have a non-slip finish and contained several tripping hazards. He stepped over these, knelt down and rotated the floodlight to remove the damaged glass.

The next thing the engineer recalls was a helicopter hovering overhead preparing to transfer him to hospital.

From the subsequent investigation, it was clear that the glass had been replaced and that the floodlight was returned to its original position. The engineer then

either stepped back through the guardrail gap, or fell from the mast ladder onto the wheelhouse roof, landing on his back and cutting his head. No one saw him fall, although the skipper heard him land on the wheelhouse roof.

Sadly, this accident resulted in the engineer severing the lower part of his spinal cord.



Figure 3 (above): Port side of the platform.

Figure 1 (right): General view from stern.

The Lessons

While we cannot be sure whether the lack of a non-slip finish, or the open guardrail contributed to this accident, the following lessons should be learned from this tragic accident:

- 1** Safety harnesses or other restraining devices *must always* be used when working aloft in accordance with the Code for Safe Working Practices. There should be no exceptions to this rule.
- 2** Safety chains should be fitted to open accesses in guardrails. If they have to be removed to gain access, they should be re-instated immediately.
- 3** A non-slip finish should be applied to hazardous working deck areas, or where risk assessments have identified there is a risk to personnel.
- 4** When working aloft, crew should tell others of their intentions, and they should be aware of any potential hazards.
- 5** Risk assessments should be conducted where personnel are exposed to dangerous or unusual activities.

Two fires, a flood



Replicated fuel leakage from main engine duplex fuel filters.

Narrative

In less than 5 weeks, a twin rig trawler suffered two engine room fires, a flood and a foundering. The second fire and the subsequent flooding resulted in her total loss.

In the first incident, the vessel had been trawling for about 3 hours when the skipper noticed smoke emitting from the outlet of the engine room exhaust ventilator. He immediately headed for the engine room, where he attempted to isolate the fuel systems, without success. His attempt to then operate the CO₂ system (despite the compartment ventilation flaps remaining open) also failed because the system had been poorly maintained. Unaware that the CO₂ had not been successfully discharged, a short time later he entered the engine room with the ship's engineer to see if the fire had been extinguished.

The Lessons

1 In the event of a fire, your life and the lives of your colleagues may well depend on the proper maintenance of fixed CO₂ fire-fighting systems and remotely operated emergency shut off valves. All too often, an "out of sight, out of mind" approach to these systems results in their neglect.

2 CO₂ extinguishes fires by smothering and reducing a compartment's oxygen content. The compartment must, therefore, be isolated and the ventilation flaps closed prior to its use. The space must then not be opened and ventilated until crew are confident that the fire is fully extinguished and the compartment is cool. Failing to do this, will mean the risk of re-ignition.

3 Skippers and crew should be aware of the dangers of entering a compartment that has been subject to CO₂ smothering. The residual toxic gases from both combustion and CO₂ can be fatal if a compartment is entered before it has been adequately ventilated and oxygen levels checked to be satisfactory. In the first instance, seek the coastguard's advice.

4 Only by conducting drills will actions become instinctive and crew be able to cope with emergency situations effectively, thus improving everyone's chances of survival. This includes being familiar with the operation of emergency facilities such as smothering systems, pipework isolations and pumping systems.

and a foundering

The fire had actually died out without the use of the CO₂. The trawl wires were subsequently cut and the vessel towed into port.

Five weeks later, following extensive repairs, including a complete overhaul of the CO₂ fire-fighting system, the vessel sailed to recover her trawl gear. She

suffered another engine room fire.

The crew were alerted; this time the ventilation flaps were closed and the main engine shut down. The CO₂ system was activated and the fuel shut off valves were closed. Despite the dangers posed by the toxic effects of combustion and CO₂, the skipper then

attempted to enter the space. He was beaten back by the gases. Water entered the engine room, probably from failed water pipework systems, and the vessel quickly adopted a list to port.

A lifeboat's salvage pump was transferred by helicopter, but the pump was rendered ineffective by debris blocking its suction. The water level increased rapidly, so the decision was taken to abandon the vessel. Within a short space of time, the vessel plunged by the stern.



CO₂ bottle and operating arrangement.

5 Debris from the engine room rendered the lifeboat's salvage pump ineffective. Equipment must be correctly and securely stowed, debris must be removed and bilge areas must be kept clear of anything which may affect pumping operations. A vessel that is clean, tidy and secure is a safer vessel.

General smoke damage.



Lulled into a false sense of security

Narrative

A fishing vessel left her home port at 0400 to haul her catch of lobster and crab. Around lunch time, she then headed for her landing port for the next morning's market. The weather was good and each crewman took a watch during the night, shaking the next man when they became tired. They unloaded the catch early next morning and headed ashore. They visited a local shop and headed back to a café/bar on the harbour front for a drink or two.

They cast off around midday with the skipper in the wheelhouse while the crew, on deck, readied

the vessel for sea. The weather was fair with a 10 knot breeze and good visibility. The skipper steered his vessel manually out of the narrow channel from the harbour. Although a difficult channel to navigate, the skipper was very familiar with it, and had been in and out of the harbour numerous times in all weathers.

As the channel widened to starboard, he engaged the autopilot and then tended to his navigation equipment, setting it up for the voyage. After a minute or so, the skipper looked up and noticed his vessel veering to port. He put the

vessel astern, but it was too late and they hit the rocks on the port side of the channel. The skipper continued astern back into the main channel before heading back towards the harbour. The skipper called to a crewman to check the forward hold. No flooding was found. The crewman then checked the engine room and found water almost up to the top of the engine. The skipper shouted to his crew to launch the liferaft.

The crew experienced some difficulty trying to release the liferaft, and resorted to cutting the retaining strap to free the liferaft



The Lessons

1 Do not underestimate the effect of fatigue. The skipper probably had less than 4 hours sleep in the previous 24 hours. As the weather was relatively calm, the skipper was lulled into the decision to engage the autopilot 2-3 minutes before the vessel was clear of all danger, and then busied himself with a more minor task.

2 Drinking alcohol, especially in combination with being tired, will reduce alertness and will affect judgment and perception. Although alcohol may initially feel like a stimulant, it will very quickly have the opposite effect.

3 The autopilot was not fitted when the vessel was built, but was added sometime later. Every effort should be made to consider the user-friendliness of fitting new equipment, especially in the wheelhouse. For

example, it might have been possible to wire the pump directly into the autopilot switch. Alternatively, an indication light might have been all that was needed to highlight the error to the skipper.

4 Make sure your liferaft quick release clip works. In an emergency, scrambling for a knife or hammer is not ideal. A simple test is all that is needed to see if the senhouse/pelican slip will release. If it doesn't, change the slip or modify the arrangement in consultation with your liferaft service agent and MCA surveyor.





canister. The crew threw the liferaft over the side and then clambered into it. The skipper joined them shortly after. Their fishing vessel sank 2-3 minutes later in the main channel. They were close to the harbour and were soon rescued by a local boat.

The reason for the fishing vessel veering to port was thought to have been the failure to turn on the electrically-driven hydraulic steering pump when the autopilot was engaged. This was a mistake that had been made before, but not while in the confines of a narrow channel.

All action and no talk

Narrative

A 10m boat was at anchor 2 miles offshore with a group of anglers on board. It was a fine day and visibility was good. The boat was displaying an anchor ball 3m above deck level, and also had a bright orange mizzen sail hoisted to keep her lying into the wind.

The skipper of the angling boat saw a small general cargo coaster at a range of 3 miles heading towards him. He continued to monitor the approach of this vessel, and when it became evident that the coaster was not altering course,

the skipper cut his anchor rope and drove clear in order to avoid a collision. The vessels passed at a distance of about 30m.

The coaster was on a westerly course and was steaming towards the bright evening sun at a speed of 8.5 knots. The sun made it very difficult to see ahead, but her master had detected the angling boat by radar when at a range of 4 miles, and expected her to keep clear. However, he did not realise that she was at anchor until he saw her cut her anchor rope and move clear.



Harbour entrance at low water

The Lessons

1 The prompt action by the skipper of the angling boat saved not only his boat, but also possibly the lives of the anglers on board. Any delay in taking this action, such as by trying to contact the coaster via VHF radio, would probably have resulted in a less positive outcome. It pays to take action and to argue the detail after the event.

2 Radar is a great aid to collision avoidance, but is more useful when used in conjunction with visual information. When a target is stationary, it is impossible to know that she is at anchor unless the relevant shapes, lights, or cable are sighted. These indications are frequently difficult to see because of a vessel's aspect, size or distance. More often than not, they are not seen unless binoculars are used.

3 Sunglasses are a simple but effective aid when looking towards a setting or rising sun.

Vessel saved by



Narrative

Two steel fishing vessels were in the process of pair trawling, having been at sea for 5 days. The sea was rough and a force 7-8 wind was blowing. One of the vessels was trailing her net with the wind on her starboard bow to enable the other vessel to collect the port end of the net. This process was initiated by positioning the sterns of the two vessels close together to allow a heaving line to be thrown across from the receiving vessel.

During the manoeuvre, the vessels came too close, and in the rough seas the vessel trailing the net came down on the starboard corner of the receiving vessel's transom. This dented and punctured the hull plating below the waterline of the vessel trailing the net. The accommodation space started to flood, but instead of investigating the source of the

Area of damage.

The Lessons

The vessel and crew had a good helping of luck during this accident, and fortunately it resulted in a happy ending. However, there are several lessons to be learned:

1 When standard procedures become so routine that the thought required to put them into practice is neglected, familiarity and over confidence can lead to careless - and sometimes dangerous - mistakes. Ensure your risk assessment has considered the consequences of conducting operations in all conditions, including during severe weather. The crew involved in this case expected their vessels to receive the odd bump here and there, but had not considered the possible consequences in rough weather. They also learned that the tried, trusted and possibly the quickest method of passing lines between the two vessels is not necessarily the safest.

2 If you find that your vessel is taking in water, you will be in a frantic race against time; precious time should never be wasted retrieving your nets. Instead, treat all flooding incidents as life-threatening, and remember that your main priorities are to save yourself and your vessel - after all, your vessel is your best liferaft. Investigate the source of the flooding and then close it off or patch it as best you can; any delay could hamper your efforts of finding the flooding source. If the flood water can be reduced, or preferably stopped, this will considerably increase the chances of your bilge pumps being effective. Above all, don't rely on your fixed bilge pumps alone to cope with major flooding.

a plastic bag?

flooding further, the skipper instructed the crew to retrieve the nets. This took about 10 minutes. Having no means of pumping water out of the accommodation space, the skipper then called the coastguard to request portable pumps. He also headed towards the nearest offshore platform.

The pumps arrived by helicopter over an hour later, and were started with the assistance of the helicopter winch man. But they quickly became blocked and stopped pumping. The skipper recalled that there was a drainage pipe situated between the accommodation and the engine room, but this appeared to be blocked because no water was flowing into the engine room. In an effort to allow the flood water to pass through, the skipper instructed the engineer to burn a small hole in the bulkhead between the cabin and

the engine room. This then allowed the two bilge pumps in the engine room to get rid of the flood water.

Concerned about the increasing stern trim of his vessel, the skipper shot away his net and transferred it to the partner vessel, thereby removing 3-4 tonnes from the vessel's stern. But to no avail; the water level continued to rise in the cabin and eventually reached the steering gear, causing it to fail.

With no steerage, the skipper had little choice but to abandon ship. But before doing so, he managed to arrange a tow from an offshore support vessel. The towline was secured and the bilge pumps were left running. The engine room and fish room hatches were closed – but the watertight doors into the superstructure were left open.

The crew were all transferred by helicopter to the offshore

support vessel, and the stricken vessel was towed into port a day later. On arrival in port, the fishing vessel's pumps were found still running, and a plastic bag was found blocking the hole that had been cut in the bulkhead. The vessel was slipped and repaired, and re-entered service just over a month later.

Damage to hull plating.



3 Carry additional means of pumping out your vessel. A portable salvage or submersible pump will ensure you can pump out compartments not served by the fixed bilge pumping system. Having to wait for a pump to be supplied by rescue services is time that could be usefully spent saving your vessel (*see MGN 165 for further advice*).

4 Keep your vessel watertight. Cutting a hole in the watertight bulkhead could have lost this vessel if a plastic bag had not been blocking it. *Close watertight doors*, especially external doors. This will maintain maximum buoyancy and will increase the likelihood of your vessel remaining afloat.

5 Emergency situations require immediate action. Survival suits and lifejackets should be donned without delay or, at the very least, should be ready for immediate use. Such vital equipment can be rendered useless if it is left in a compartment that is taking in water. This will dramatically reduce your chances of survival if you end up in the water.

6 Consider deploying your liferaft manually so that you have a ready means of escape if your fishing vessel suddenly capsizes or sinks.

Narrative

In the late afternoon of a fine autumn day, a 1 year old 34m trawler had completed landing her catch. Two crewmen were being hauled from the fish hold when they slipped and fell approximately 4.5m to the bottom of it. Both were taken to hospital, where they stayed for 4 days.

To land the catch, the vessel used a single line through a block rigged from a span wire over the main deck, and the hydraulic crane directly over a lorry on the dock side. Because the hydraulic crane was slow to move, the two parts were rigged together to speed up the landing operation. Landing the catch took about 2.5 hours, and involved all 10 of the crew under the direction of the skipper.

With the hold empty, the four men who had been working there were climbing out. The vessel had a portable ladder for access to the hold stored in the catch processing space above. However, the crew found this cumbersome, so rarely used it. Instead, they usually climbed out using the spar ceiling in the hold.

On this occasion, the last two men decided to use the lifting gear to haul themselves out. They clipped the lifting hooks together to form a stirrup; each put one foot into it and they then shouted up to the deck to hoist them up.

When the men were level with the main deck, they slipped and both fell back into the hold. One of



the men broke his fall when he hit the fish hold coaming on his way down, and was able to walk unaided out of the hold. The other man plummeted straight to the bottom of the hold, and was found unconscious. He was carried to the main deck and laid on a mattress to await an ambulance.

Don't ride the fish lifting gear

The Lessons

Although the cause of the accident can be attributed to the misuse of the lifting gear, a number of other issues were noted which displayed a cavalier attitude towards safety. Although they don't necessarily all relate to this accident, they are, nonetheless worth highlighting. They include:

- The portable ladder was not normally used to access the hold.
- At the time of the accident the main deck hatch opening was not roped off.
- A number of watertight doors were seized and could not be closed.
- The equipment in the safety boat was still packaged for delivery.
- The engine for the safety boat had never been rigged.

These all indicated that personal safety and the safety of the vessel took second place to fishing. The 3 day delay in port, as a consequence of this accident, could have been avoided had a suitable safety regime been in operation.

The use of lifting gear for landing a catch is governed by the Fishing Vessel (Safety Provisions) Rules 1975. Some time in the future, the Merchant Vessel and Fishing Vessel (Lifting Operations and Lifting Equipment) Regulations, known as LOLER, will come into force. These will require lifting gear to be marked with Safe Working Loads, and will prohibit the use of lifting gear for hoisting personnel.

Net hauled, only to sink with the vessel

Narrative

A 30 year old 20m wooden fishing vessel was trawling for white fish out of a UK fishing port. The vessel was in good condition, had been certified by the MCA 6 weeks earlier, and was manned by an experienced skipper and two crew.

They completed five good hauls, but during the sixth haul, just as the three fishermen finished their evening meal, the engine room bilge alarm sounded. The skipper immediately went below into the engine room and engaged the main engine-driven bilge pump. He first pumped out the engine room and then left the pump running in the fish room, from where he believed melt water to be running aft.

About 15 minutes later, the bilge alarm sounded again and the skipper repeated his earlier actions.

However, on this occasion, he inspected the fish room but found nothing wrong.

The bilge alarm sounded again about 20 minutes later. This time, the skipper became concerned. He alerted the crew, asking them to don lifejackets and prepare to haul the net. He then hurried to the engine room where he engaged the main engine bilge pump, as before, and the auxiliary bilge pump. He then returned to the main deck to haul the net. He did not investigate the source of the flooding, nor did he shut the sea cocks because he needed the main engine to be running in order to haul the nets.

Once the net was alongside, the skipper returned to the engine room and found the water was now above the floor plates. He could no

longer access the sea cocks or locate the source of the flooding, so went to the wheelhouse and called other fishing vessels in the area for assistance using the VHF radio. The two crewmen transferred to a nearby vessel; the skipper remained on board. One hour after calling other fishing vessels for help, and only after the main engine started to falter, the skipper eventually contacted the coastguard. The water had reached the main engine heads. The skipper transferred to the other fishing vessel after a further hour, when the main engine finally stopped.

Two rescue vessels, both equipped with salvage pumps, arrived on scene as the vessel rolled onto its port side and sank, 30 minutes later.

The Lessons

1 The skipper did not follow the excellent guidance given in MGN 165(F), which states that it is essential that the source of flooding is located first, and before any attempt is made to haul the fishing gear. *There is no point in recovering your gear, only to lose it, along with the vessel and possibly your life.*

It is likely that, in this case, the failure of some flexible hosing, inserted in the main engine cooling system 5 years earlier, caused the flooding. A quick check under the plates at an early stage would have found this, and it could then have been repaired easily.

2 Always call the coastguard at the first sign of any flooding. Had the skipper called the coastguard and the other fishing vessels simultaneously, assistance would have been on scene an hour before the vessel sank. It is likely that she could then have been saved with the use of the salvage pumps.

Family tragedy averted

Narrative

The families of three crew members were very nearly left grieving when a small fishing vessel (less than 10m registered length) took a glancing blow from a 248m tanker. Fortunately, on this occasion, the outcome was relatively minor and the three men survived.

The trawler was returning to her home port, in fair weather and good visibility, but it was dark. Having ensured that no other vessels were in the immediate vicinity, the skipper went to the after deck to help the two deckhands process the catch. His view outside from the sheltered processing area was limited to directly astern. He returned to the wheelhouse every 12-15 minutes to check for traffic, but saw none.

The tanker, meanwhile, was heading nearly due south at about

13 knots. Her bridge team consisted of the chief officer and a lookout. The chief officer saw the lights of a vessel at between 30° and 40° on the port bow, and the radar indicated that she was at a distance of about 5.5 miles and on a collision course. As they approached, he could see through his binoculars that the other vessel was a fishing vessel on passage. Under the collision regulations, his was the stand-on vessel, so he expected the trawler to alter course and give way. It did not.

Aware that fishing vessels often delay taking avoiding action until relatively close, the chief officer initially just monitored the situation. However, it soon became evident that the fishing vessel was taking no avoiding action, so the chief officer went to the bridge wing and

flashed his Aldis lamp at her. He then sounded one long blast on the ship's whistle. Still the trawler took no action. As the distance between the two vessels closed, and when about 1.2 miles apart, the chief officer ordered his own vessel hard-to-starboard. But by this time it was too late.

The fishing vessel received a glancing blow to her starboard shoulder as the tanker turned rapidly. The impact caused her to heel over violently, and seas poured in over her port quarter. Although her three crew members were jolted suddenly, none were injured and the vessel suffered only relatively minor damage.



The Lessons

1 Balancing the need of meeting demanding fishing quotas, while at the same time facing restrictions in the number of days they are permitted to fish, places skippers/owners under intense pressure. But commercial pressure should never take precedence over safety.

2 It is essential that those entrusted with lookout duties perform them properly. Not doing so can have fatal consequences.

3 When an OOW is faced with a fishing vessel on passage, on the port bow, and on a collision course with his/her merchant ship, a dilemma arises. Will the fishing vessel alter course or not and, if it does, will it alter at the last moment because it is very manoeuvrable? The OOW must decide when to alter course to avoid a collision if the fishing vessel is not



View from bridge of tanker

apparently taking action. Collisions have occurred in these circumstances because the OOW has delayed altering course, having expected the fishing vessel to alter course at the last moment.

If you are the give way fishing vessel for other crossing vessels, alter early and substantially so that the OOW of the other vessels can see clearly that action has been taken.

Alcohol and lack of sleep – a lethal cocktail

Narrative

After an evening spent ashore enjoying beer and spirits until about 1 o'clock in the morning, two deckhands returned to their wooden-hulled prawn trawler. The skipper chose, instead, to go home for the evening.

Early the following morning, the skipper returned to the vessel and started the engine. It was still dark. Awoken by the sound of the engines, one of the deckhands got up and went on deck to cast the lines off. The other remained asleep. Sitting in the port chair, rolling a cigarette, the deckhand observed that the skipper was not manually steering the vessel, but was programming the chart plotter, probably setting course for the fishing grounds.

Very shortly afterwards, and completely without warning, the vessel stopped with such violence that the deckhand was pitched out of the chair and into the console in front of him. Realising the vessel had gone aground, the skipper immediately put the engine astern. But this had no effect, so he instructed the deckhand to check the fish hold. The hold and the cabin below it were both rapidly filling with water.

The other deckhand was roused, while the skipper made a distress call to the coastguard. The two deckhands donned their lifejackets and quickly evacuated, managing to swim ashore and scramble onto some nearby rocks.

However, the lifeboat crew found the skipper laying face-down in the water. He was taken to hospital, but died later that day.

Usually, when the vessel made its way out to sea, the skipper would engage the automatic helm at the entrance to the harbour. Perhaps on this occasion, he believed he had set the course on the automatic helm, and had engaged it, but had not actually done so. He might then have become distracted with the chart plotter. It is possible that with no steering, the left-handed propeller then caused the vessel to turn to starboard and towards the shore.

Location of grounding

The Lessons

1 If the skipper and the deckhand had been more alert and had maintained a good lookout, they would have noticed the vessel was not following her intended course and would have taken action to rectify it. However, the skipper had allowed himself to become preoccupied in other work, and the deckhand had not been in the wheelhouse long enough to become fully acquainted with the surroundings.

2 When charged with keeping a lookout, crew should never allow themselves to become distracted by other tasks.

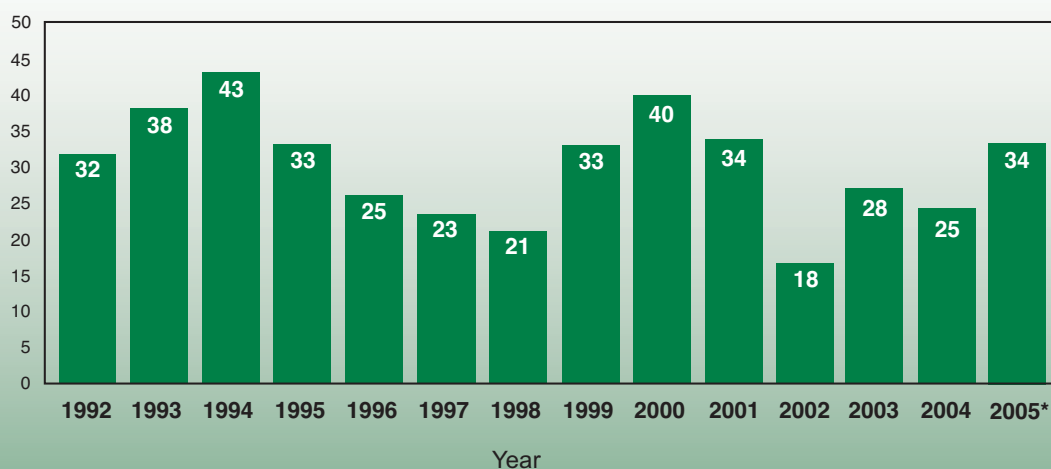
3 The skipper and crew had enjoyed a 'few pints' ashore the previous evening, which then took their tragic toll the following day. All too often, chronic fatigue, resulting from too little sleep and consuming alcohol, has fatal consequences. It is a lethal cocktail.



4 The *Rail and Transport Safety Act 1993* lays down legislation which makes it an offence for professional masters, pilots and seamen to be impaired in carrying out their duties by drink and drugs. The prescribed limit of drink for seafarers is the same as for car drivers.

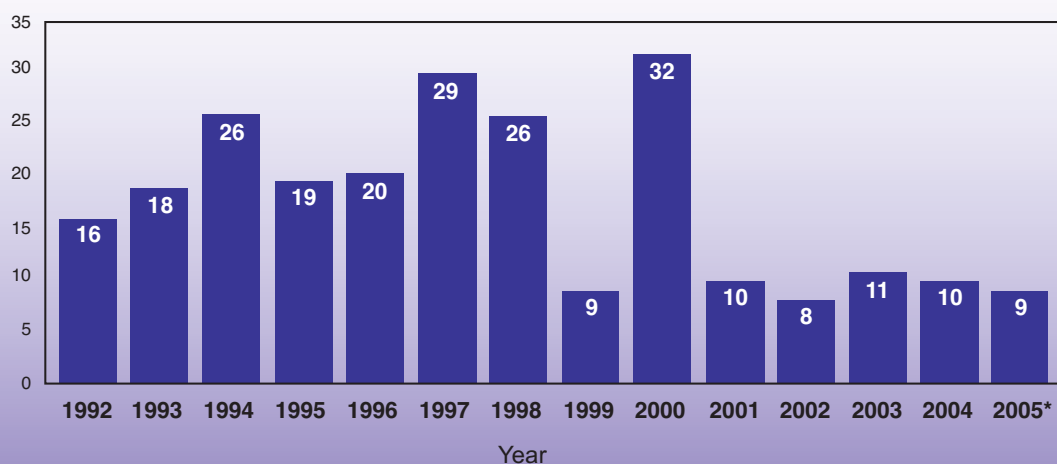
Fishing vessel accident

Fishing Vessel Losses 1992-2005



* Figures for 2005 are provisional at time of publication. (May 2006)

Deaths 1992-2005



statistics

Fishing Vessel Accident Statistics 1996–2005

YEAR	LOSS OF LIFE					PERSONAL ACCIDENTS	VESSELS LOST
	Lost with vessel	Fell overboard	Involved Machinery	Onboard Accidents	Total		
1996	9	4	1	6	20	97	25
1997	16	7	0	6	29	106	23
1998	18	5	0	3	26	89	21
1999	3	4	0	2	9	72	33
2000	21	6	2	3	32	73	40
2001	1	6	0	3	10	77	34
2002	4	4	0	0	8	51	18
2003	4	5	1	1	11	58	28
2004	7	3	0	0	10	62	25
2005*	1	6	0	2	9	62	34
TOTAL	84	50	4	26	164	747	281

* Figures for 2005 are provisional at time of publication. (May 2006)

UK Fishing Vessels 2005
(PROVISIONAL FIGURES)

1 Fatal accidents (showing number of deaths)
X Vessels lost

The map shows the following locations and features:

- UK Islands:** Shetland, Orkney Islands, Hebrides or Western Isles, Northern Ireland, Republic of Ireland, Shetland, Orkney Islands, Hebrides or Western Isles.
- Coastal Regions:** Scotland, England, Wales, Ireland.
- Water Bodies:** North Sea, Celtic Sea, Irish Sea, English Channel.
- Key Locations:** Aberdeen, Glasgow, Edinburgh, Newcastle, Middlesbrough, Liverpool, London, Southampton, Plymouth, Brest, Cherbourg, Dover, Felixstowe, Great Yarmouth, Orfordness, Goeree, Oosterschelde, IJmuiden, Rotterdam, Amsterdam, Antwerp, Bruges, Ghent, Le Havre, Caudebec, Paris.
- Navigation Aids:** OODAS K5, OODAS K4, OODAS K6, OODAS K7, OODAS K8, OODAS K9, OODAS K10, OODAS K11, OODAS K12, OODAS K13, OODAS K14, OODAS K15, OODAS K16, OODAS K17, OODAS K18, OODAS K19, OODAS K20, OODAS K21, OODAS K22, OODAS K23, OODAS K24, OODAS K25, OODAS K26, OODAS K27, OODAS K28, OODAS K29, OODAS K30, OODAS K31, OODAS K32, OODAS K33, OODAS K34, OODAS K35, OODAS K36, OODAS K37, OODAS K38, OODAS K39, OODAS K40, OODAS K41, OODAS K42, OODAS K43, OODAS K44, OODAS K45, OODAS K46, OODAS K47, OODAS K48, OODAS K49, OODAS K50, OODAS K51, OODAS K52, OODAS K53, OODAS K54, OODAS K55, OODAS K56, OODAS K57, OODAS K58, OODAS K59, OODAS K60, OODAS K61, OODAS K62, OODAS K63, OODAS K64, OODAS K65, OODAS K66, OODAS K67, OODAS K68, OODAS K69, OODAS K70, OODAS K71, OODAS K72, OODAS K73, OODAS K74, OODAS K75, OODAS K76, OODAS K77, OODAS K78, OODAS K79, OODAS K80, OODAS K81, OODAS K82, OODAS K83, OODAS K84, OODAS K85, OODAS K86, OODAS K87, OODAS K88, OODAS K89, OODAS K90, OODAS K91, OODAS K92, OODAS K93, OODAS K94, OODAS K95, OODAS K96, OODAS K97, OODAS K98, OODAS K99, OODAS K100.

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MAIB
Marine Accident Investigation Branch

MAIB published reports

Fishing vessel accident reports published since 1999

Alma C – report on the death of Michael John Beedie, a fisherman from the fishing vessel Alma C, on Turbot Bank about 55 miles west-by-south of Thyboron in Denmark on 25 January 2001

Amber – loss of a fishing vessel in the Firth of Forth on 6 January 2003

Amber Rose – foundering of a fishing vessel with the loss of one life off the Isle of Man on 15 October 1998

Angela – capsized and foundering of a fishing vessel in the North Sea on 6 February 2000

Annandale – flooding and foundering of a fishing vessel 16 miles north-north-east of the Shetland Islands on 23 March 2000

Arosa – grounding and total loss of UK fishing vessel on Doonguddie rock off the west coast of Ireland with the loss of 12 crew members on 3 October 2000

Astra II – loss of two crewmen attempting to board the vessel while berthed at Carbost pier, Loch Harport, Isle of Skye on 2 April 2000

Atlantic Princess – man overboard incident from vessel in the English Channel on 23 November 2000

Aurelia – flooding and loss of fishing vessel Aurelia, 78 miles west of St Kilda on 13 August 2001

Auriga – loss of fishing vessel Auriga off Portavogie, Northern Ireland on 30 June 2005

Be Ready – fire on board the fishing vessel while fishing 30 miles north-west of the Orkney Islands on 22 January 2000

Betty James – grounding and subsequent loss of a fishing

vessel off Isle of Rhum on 10 July 2000

fv Beverley Ann II/Cypress Pass – collision between vessels on 9 March 1999

Blue Hooker – loss of a fishing vessel with two lives off Blackchurch Rock, North Devon on 12 November 1998

Blue Sinata – foundering of fishing vessel in Weymouth Bay on 8 September 2005 with loss of one life

Bounty – capsized and loss of the 9.8m trawler Bounty, 4 miles off Berry Head, South Devon on 23 May 2005

Bro Axel/fv Noordhinder – near miss between Bro Axel and fv Noordhinder and the subsequent grounding of Bro Axel at Milford Haven 5 December 2002

Catrina – capsized of a UK registered fishing vessel south of Newhaven on 13 October 1998

Celtic King/De Bounty – collision between UK registered feeder container ship Celtic King and Belgian registered fv De Bounty to the south of The Smalls traffic separation scheme off the south-west coast of Wales on 19 March 2000

Charisma – capsized of the fishing vessel Charisma (OB588) with the loss of one crew member in Carlingford Lough on 30 January 2002

Chelaris J – capsized and sinking of the fishing vessel Chelaris J (GU323) and loss of all crew members Banc de la Schôle (near Alderney) 1 October 2003

Chelaris J – le chavirement et le naufrage du bateau de pêche Chelaris J (GU323) avec la perte de tous les membres de l'équipage, Banc de la Schôle (près d'Alderney), 1er octobre 2003

Christine Nielsen – flooding and foundering of a fishing vessel 120 miles north-east of the River Tyne on 18 March 2001

Constancy – sinking of a fishing vessel on 30 July 1998 with the loss of one life

Constant Faith – loss of a fishing vessel about 100 miles north-north-east of Peterhead on 30 June 2001

Crimond II – loss of a fishing vessel 30 miles north-east of Scarborough on 24 April 2001

De Kaper – fire on board a trawler off Hanstholm, Denmark on 12 February 1999

Donna M – capsized of a fishing vessel off the Orkney Islands with the loss of two lives on 31 August 1999

Dunan Star – fatal accident on board a fishing vessel 1.5 miles south-west of the Isle of Arran on 10 August 2000

Elegance – investigation into 2 engine room fires, subsequent flooding and foundering of the fishing vessel Elegance 30 miles north-west of Shetland on 30 January 2004 and 8.5 miles west of Shapinsay on 5 March 2004

Elhanan T – flooding and foundering of the fishing vessel Elhanan T on 14 August 2003

mv Elm/mfv Suzanne – near miss incident on 11 February 1999

Emerald Dawn (one of trilogy) – capsized and foundering of fishing vessel off Kilkeel with the loss of one life on 10 November 2004

European Tideway and Vrouw Grietje – collision between vessels in the North Sea on 16 October 2000

Fishing Vessel Safety Study 1/2002 – report on the analysis of fishing vessel accident data 1992 to 2000

Flamingo – capsized of a fishing vessel east of Harwich on 7 July 2002

Fleur de Lys – explosion on board vessel which then

foundered 18 miles south-east of Portland Bill on 16 April 2000

Fraoch Ban – capsized of a fishing vessel off the coast of the Shetland Islands on 15 August 1999

Geeske – death of one person while fishing off Beachy Head on 9 December 1998

Gemma Fidelis – fatal accident on board Gemma Fidelis 9 miles east of the River Tees on 23 October 2001

Girl Alice – loss of skipper from vessel 1.5 miles south-east of Burnmouth on 19 November 2000

Gradeley – man overboard fatality off the west coast of the Island of Mull on 28 October 1999

Gudermes and Saint Jacques II – collision between vessels in the Dover Strait on 23 April 2001

Harbour Lights – loss of a fishing vessel off Polperro, Cornwall on 8 January 2000 with the loss of one life

Horizonte Claro – grounding of a fishing vessel on Soyea Island, Loch Inver, on 21 October 2000

Jann Denise II – foundering of fishing vessel Jann Denise II, 5 miles SSE of the River Tyne on 17 November 2004 with the loss of her two crew

Jasper III – foundering of vessel 90 miles north-east of Fraserburgh on 10 September 1999

Kathryn Jane (one of trilogy) – foundering of fishing vessel 4.6nm west of Skye on or about 28 July 2004 with the loss of the skipper and one possible crew member

Kingfisher II – investigation of the fire on board the fishing vessel Kingfisher II whilst on passage to recover creels, 5 miles east of North Uist on 26 April 2004

Kirsteen Anne – loss of a fishing vessel in the Firth of Lorn on 31 December 2002 with the loss of her two crew

Lomur – grounding of a fishing vessel in the approaches to Scalloway, Shetland Islands on 14 June 2001

Luc and Toisa Puffin – collision between two vessels 8.5 miles due east of the river Tyne on 13 June 1999

Lysfoss – grounding of a fishing vessel in the Sound of Mull, Scotland on 7 May 2001

Marbella/Bravo Delta offshore platform – collision between UK registered fishing vessel and offshore platform in the Rough Gas Field about 25 miles south-east of Flamborough Head on 8 May 2002

Mariama K – carbon monoxide poisoning on board a fishing vessel in Douamenez, France on 10 June 2000 – one fatality

Mathilda and fv Lady Hamilton of Helford – near miss incident between Mathilda and fv Lady Hamilton of Helford, 7 miles east-south-east of Lizard Point, Cornwall on 28 June 2001

Ocean Star – failure of a warp block on board a UK registered fishing vessel north of the Shetland Islands resulting in one fatality on 26 November 2001

Opportune – man overboard fatality from a fishing vessel 35 miles east of Wick on 23 February 2000

Osprey – fatal accident to a man overboard from a fishing vessel in Lochinver Harbour on 20 April 2002

Our Nicholas – grounding and loss of the crabber Our Nicholas near the entrance to Stornoway Harbour on 24 July 2001

fv Our Sarah Jayne/TheISIS – collision between vessels in the Thames Estuary on 20 June 2001

Pescalanza – sinking of a fishing vessel with the loss of six lives on 2 November 1998

Philomena – fatal accident on board vessel in the Moray Firth on 6 March 2001

Primrose – grounding of vessel on the Island of Rhum on 15 June 2001

Purbeck II – injury of crew member on board on 7 June 1999

Purdy – man overboard fatality from angling boat at Shipwash Bank off Harwich, on 17 July 1999

Rachel Harvey – grounding and loss of fishing vessel off Peninnis Head on 1 October 1999

Radiant – capsized and foundering of a fishing vessel about 45 miles north-west of the Isle of Lewis with the loss of one life on 10 April 2002

Radiant Star III – foundering of a fishing vessel 60 miles northeast of Fraserburgh on 6 August 1999

Random Harvest – flooding of a fishing vessel south-west of Brighton on 3 July 1999

Rebecca Kay – loss of a fishing vessel off Bideford Bar Buoy on 20 April 2001

Reno and Ocean Rose – collision between Reno and Ocean Rose off Whitby, North Sea 6 March 2004.

Resplendent – grounding of a fishing vessel in Bluemull Sound Shetland Islands on 13 June 2001

Ross Alcedo – fire on board vessel while underway about 32 miles north-west of the Isles of Scilly on 16 January 2000

Sally Jane – capsized alongside in Shoreham Harbour on 27 July 1998

mv Sand Heron and fv Celtit – collision between vessels NE Traffic Lane, Dover TSS on 30 July 2001

Sharona – flooding and foundering of a fishing vessel 80 miles north-east of Peterhead on 3 August 1999

Silvery Sea/Merkur – collision between Merkur/Silvery Sea which then foundered about 35 miles west of Esbjerg, Denmark with the loss of five lives on 14 June 1998

Solstice II – investigation of a fatal accident to a crew member, 25 miles south-west of Rockall on 13 May 2000

Solway Harvester – Summary report on the investigation of the capsized and sinking of fv Solway Harvester 11 miles east of the Isle of Man on 11 January 2000 with the loss of 7 lives.

Solway Harvester – capsized and sinking of the fishing vessel Solway Harvester 11 miles east of the Isle of Man on 11 January 2000 with the loss of 7 lives

Sundance – capsized and foundering of a fishing vessel off Galkicker Point, East Solent with the loss of one life on 10 September 2001

Suzanne – see Elm

Tullaghmurphy Lass – sinking of a fishing vessel with the loss of three lives in the Irish Sea on 14 February 2002

Union Arbo/Philomena – collision between Bahamian cargo ship Union Arbo and UK fv Philomena about 10 miles south of Newlyn, Cornwall on 2 September 1999

Van Dijk – loss overboard of a fisherman from fishing vessel while fishing 30 miles south-west of Guernsey on 16 April 2001

Vertrauen – investigation of the loss of Vertrauen about 75 miles north-east of Peterhead on 19 July 2001

Wakil II – investigation of an accident to the skipper of a fishing vessel 3.5 miles south-west of St Bees Head on 10 April 2000

SAFETY DIGEST

MAIB Safety Digest 1/2005 – Published April 2005

MAIB Safety Digest 2/2005 – Published August 2005

MAIB Safety Digest 3/2005 – Published December 2005

Copies of the Safety Digest publication can be obtained, free of charge, on application to the Marine Accident Investigation Branch (Mrs Judith Blackbourn – 023 8039 5509).

GLOSSARY of abbreviations

CO₂	Carbon Dioxide
DSC	Digital Selective Calling
EPIRB	Emergency Position Indicating Radio Beacon
GRP	Glass Reinforced Plastic
Mayday	Spoken distress signal
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
OOW	Officer of the Watch
Pan-Pan	The international urgency signal
RNLI	Royal National Lifeboat Institution
VHF	Very High Frequency



MAIB

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